

## AnaSat Operation Manual Addendum for Switch Control Option

If the SWITCH option has been installed in an AnaSat ODU, then the ODU is capable of controlling one or possibly two baseball-type waveguide switches. Such switches can be used to alternate transmit polarization, or to switch output power from an antenna to a load to take the ODU off the air, but to leave TX output power unchanged.

### Command Syntax:

**SWITCH [1|2] [A|B|OFF]**

Switch 1 or 2 is selected, along with the desired position – A or B. Examples:

SWITCH 1 B programs switch #1 to position B  
 SWITCH 2 A programs switch #2 to position A

If no switch # is given, then it is assumed to be #1. The SWITCH command can also be shortened to SW. Example:

SW B programs switch #1 to position B

A switch can also be turned off to avoid an alarm condition should it be unplugged from the ODU:

SW OFF programs switch #1 to be turned OFF.



### Status Returned:

If no arguments are given, then the status of the installed switch(es) is given. Example:

SWITCH can return  
 SWITCH SW#1=A,ACTIVE SW#2=B,OFF

indicating that switch #1 is active and in position A, switch #2 is not active but has been left in position B.

Possible status for a switch:

**ACTIVE** meaning the switch is in an assigned position, A or B, and is being actively pulsed to maintain that position. An active switch is pulsed once per second.  
**FAULT** meaning the switch has been assigned a position, but has failed to confirm that it is in that position. Failing to plug the baseball switch into the ODU would be the most likely cause. A switch that is turned OFF will not indicate a FAULT status.  
**OFF** meaning the switch has been turned off.

Note that when a switch is off, it is no longer being pulsed periodically to maintain that position. The present position will still be reported however; assuming the switch remains plugged in. If switches are not plugged in, and are programmed to be OFF, then the status reported will look like: SWITCH SW#1=OFF SW#2=OFF

### ASCII Terminal Display:

If an ODU has one or two baseball switch connectors installed, then the ASCII terminal display will include status information for the connected switches, example below:

```

                                AnaSat 200EC TXonly-SS REV:04 S/N:025234
TXREQ on |TX ON AIR [ODU is TX ONLY]
alarm status: CLEAR
SW#1=A,OFF | TXCHAN 500 | RXCHAN N/A
SW#2=B,OFF | TXGAIN 89.0 | RXDAC N/A
monitor points: TXMUTE: clear | TXLOCK: locked | RXLOCK: N/A | PA1: 9.2 |
FANERR: clear | PA0: N/A | TXPLL: 4.5 | RXPLL: N/A | PA2: 9.8 |
TEMP: 25C | | | OSLLOCK: N/A | PA3: 9.7 |
XTAL: normal | P12V: 13.4 | TXin: -18 | OSLPLL: N/A | PA4: 10.3 |
N5V: -5.1 | P5V: 5.1 | TXout: 26 | RXout: N/A | PA5: 9.8 |
last reset: 297 seconds | TXpeak: 26 | LNCV: N/A | PA6: 9.7 |
DTE1: PC_MODE | UTIMER off | ECHO on | CRLF on | BAUDRATE 9600
    
```